# SMP3

## Electromagnetic field meter

**3 INSTRUMENTS IN 1:**
Static field measurement, Spectrum analysis & Broadband field meter

**FFT-BASED TIME-DOMAIN SPECTRUM ANALYSIS**
From 1 Hz to 10 MHz

**DIGITAL OUTPUT**
For real time external measurements

**5G READY**
Ready for 5G measurements

**EMF WORKER'S SAFETY**
ICNIRP, EU Directive, FCC, SC6 (2015),...

**BROADBAND MEASUREMENT**
(0 Hz - 60 GHz)

**Field probe range**
from 0 Hz to 60 GHz

**Spectrum analysis [FFT]**
(up to 10 MHz)

**Broadband measurements**
(0 Hz - 60 GHz)

**Field values:**
X, Y, Z and Total

**Graphical display**
in real time

**Dynamic menu**

**Weighted Peak Method (WPM)**
Real time comparison with limits

**> 1 million registers**
SQL data base

**Screenshot function**

**Fibre optics (optional)**

**USB-C**
Digital Output


Available field probes





WAVECONTROL
Safety, Quality, Service

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## SMP3 Applications

Industry
Telecommunications
Energy
Railway
Medical
Labs
Aeronautical
Worker's safety
Defense
Automotive


## Technical specifications

| | | |
|---|---|---|
| Versions | Broadband | For broadband measurements using the following probes: WPFx, WPT, WP50, WPH60 and WPH1000. |
| | Selective | For frequency selective measurements from 0 to 10 MHz using WP400, WP400c, WP400-3, WP10M and WPH-DC. |
| | Dual | For both kinds of measurements using all field probes. |
| Field probes | | Automatic detection and recognition |
| Broadband | | 0 Hz – 60 GHz (depending on field probe) |
| Spectrum analysis | | up to 10 MHz |
| Weighted Peak Method | | 1 Hz – 10 MHz (Real time WPM for direct comparison with limits) |
| Readout values | | Total field (instantaneous, max., min. and average)<br>Field components (X, Y, Z) |
| E Field units | | V/m, kV/m, µW/cm², mW/cm², W/m², % |
| H Field units | | nT, µT, mT, T, A/m, %, mG, G |
| Log time | | Configurable (from 0.5 s to 6 min) |
| Average modes | | Fixed o Sliding, according to international standards |
| Average intervals | | 10 s, 15 s, 30 s, 1 min, 2 min, 5 min, 6 min, 10 min, 15 min, 30 min |
| Schedule measurement | | Customized (up to 24 hours) |
| Memory capacity | | More than 1 million samples |
| Data downloading | | USB-C and fibre optics |
| Firmware updating | | USB-C |
| Alarm | | 2400 Hz audible signal (adjustable threshold) |
| Display type | | Color transmissive TFT (480 x 272 pixels) |
| GPS (optional) | | Built-in u-blox 8 (56 independent tracking channels) |
| Digital Output | | Probe direct output // Digital output through USB-C for WP400 family probes |
| Battery | | Internal rechargeable Li-ion |
| Autonomy | | > 24 hours |
| Temperature range | | -10 ºC to +50 ºC |
| Humidity | | 5% to 95%, non-condensing |
| Size | | 100 x 215 x 40 mm (3.9 x 8.4 x 1.5 ") |
| Weight | Broadband | 560 g (19.7 oz.) |
| | Selective | 635 g (22.4 oz.) |
| | Dual | 635 g (22.4 oz.) |

Product specifications and descriptions in this document subject to change without notice

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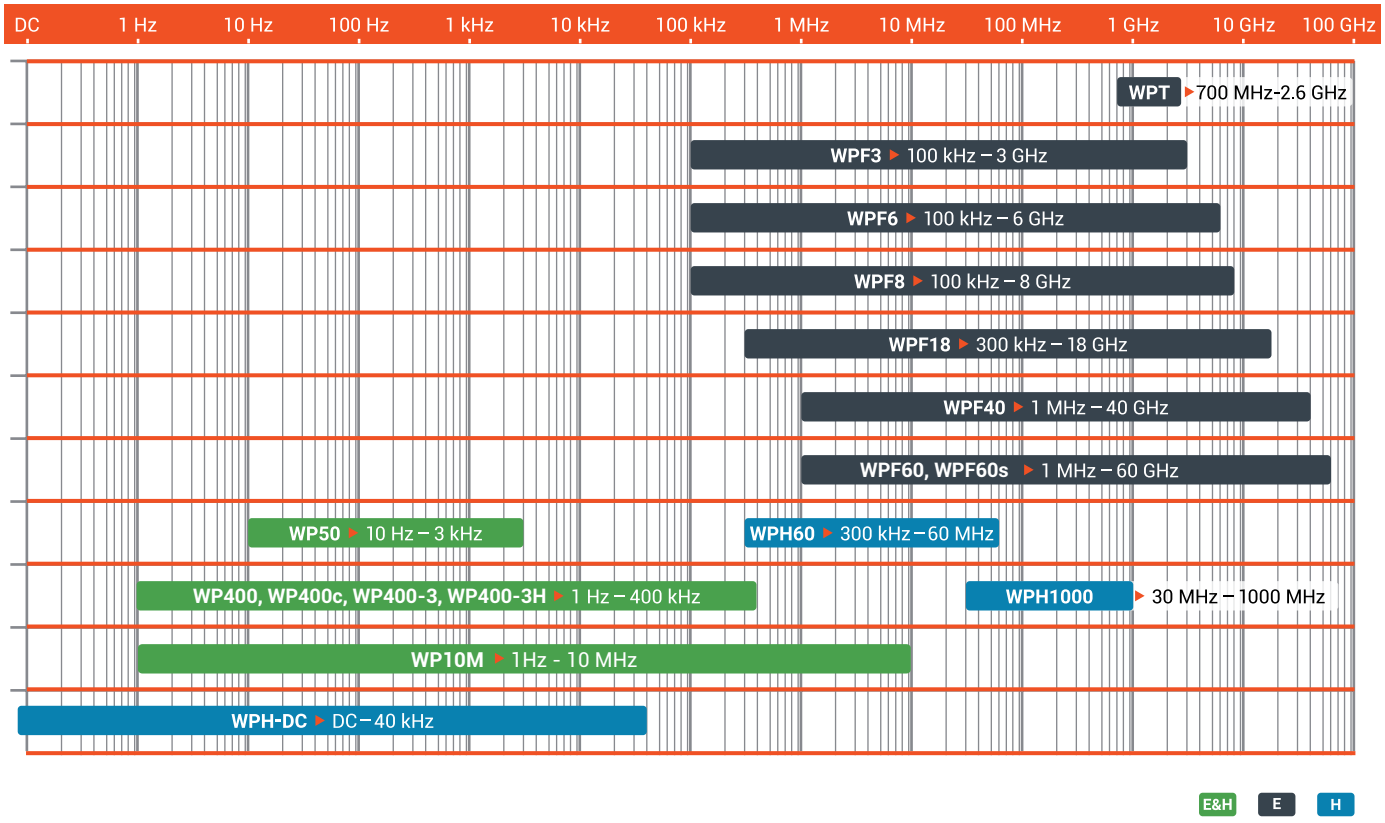
## Electromagnetic field meter. Compatible field probes

Wavecontrol provides a full range of E-Field, H-Field and E&H Field probes covering different frequency ranges starting at 0 Hz and up to 60 GHz.

Probes are plug and play and come with an individual ISO 17025 accredited calibration. All sensors are isotropic, RMS and highly accurate.




## Frequency range of compatible field probes





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| Model | Frequency range | Response | Measurement range | Linearity | Size |
|---|---|---|---|---|---|
| **WPH-DC Selective & Broadband** | 0 – 40 kHz | Flat | H-Field: 10 µT – 10 T | 0.6% (100 uT – 1 T)<br>1% (100 uT – 2.4 T) | 27.3 cm x 2.1 cm Ø<br>10.8 " x 0.8 " Ø<br>Sensor stick: 0.94 cm Ø<br>0,37 " Ø |
| **WP400 Selective & Broadband** | 1 Hz – 400 kHz | Flat / Shaped (Weighted Peak Method) | E-Field: 1 V/m – 100 kV/m<br>H-Field: 50 nT – 30 mT @50 Hz<br>50 nT – 10 mT<br>(100 Hz – 10 kHz)* | ±1% (Typical)<br>±2% (Maximum) | 28 cm x 12.8 cm Ø<br>11 " x 5 " Ø |
| **WP400c Selective & Broadband** | 1 Hz – 400 kHz | Flat / Shaped (Weighted Peak Method) | E-Field: 1 V/m – 100 kV/m<br>H-Field: 50 nT – 30 mT @50 Hz<br>50 nT – 1.5 mT<br>(820 Hz – 40 kHz)* | ±1% (Typical)<br>±2% (Maximum) | 28 cm x 12.8 cm Ø<br>11 " x 5 " Ø |
| **WP400-3 Selective & Broadband** | 1 Hz – 400 kHz | Flat / Shaped (Weighted Peak Method) | E-Field: 10 V/m – 400 kV/m<br>H-Field: 200 nT – 50 mT<br>(100 Hz – 10 kHz)* | ±1% (Typical)<br>±2% (Maximum) | 27.5 x 3.3 cm Ø<br>10.8 " x 1.3 " Ø |
| **WP10M Selective & Broadband** | 1 Hz - 10 MHz | Flat / Shaped (Weighted Peak Method) | E-Field: 2 V/m - 100 kV/m<br>2 V/m - 47 kV/m<br>(160 kHz-10 MHz)<br>H Field: 100 nT - 47 mT @50 Hz<br>400 nT - 4,7 mT<br>(500 Hz - 10 MHz) | +/- 1% (Typical)<br>+/- 2% (Maximum) | 28 cm x 12.8 cm Ø<br>11" x 5" Ø |
| **WP50** | 10 Hz – 3 kHz | Flat / Shaped | E-Field: 2.5 V/m – 20,000 V/m<br>H-Field: 0.05 µT – 2,000 µT | ±1% (Typical)<br>±2% (Maximum) | 27 cm x 11.5 cm Ø<br>10.6 " x 4.5 " Ø |
| **WPH60** | 300 kHz – 60 MHz | Flat | H-Field: 0.018 – 1 A/m (RMS)<br>0.018 – 20 A/m (CW) | ±1 dB (0.04 – 4 A/m) | 27 cm x 9 cm Ø<br>10.6 " x 3.5 " Ø |
| **WPH1000** | 30 MHz – 1000 MHz | Flat | H-Field: 0.018 – 20 A/m | ±1 dB (0.04 – 4 A/m) | 28.4 cm x 6 cm Ø<br>11.2 " x 2.4 " Ø |
| **WPF3** | 100 kHz – 3 GHz | Flat | E-Field: 0.2 – 20 V/m (RMS)<br>0.2 – 130 V/m (CW) | ±0.5 dB (0.5 – 100 V/m) | 28.4 cm x 6 cm Ø<br>11.2 " x 2.4 " Ø |
| **WPF3-HP** | | Flat | E-Field: 0.2 – 20 V/m (RMS)<br>0.2 – 1,000 V/m (CW) | ±0.5 dB (0.5 – 100 V/m) | 28.4 cm x 6 cm Ø<br>11.2 " x 2.4 " Ø |
| **WPF6** | 100 kHz – 6 GHz | Flat | E-Field: 0.2 – 20 V/m (RMS)<br>0.2 – 130 V/m (CW) | ±0.5 dB (0.5 – 100 V/m) | 28.4 cm x 6 cm Ø<br>11.2 " x 2.4 " Ø |
| **WPF6-HP** | | Flat | E-Field: 0.2 – 20 V/m (RMS)<br>0.2 – 1,000 V/m (CW) | ±0.5 dB (0.5 – 100 V/m) | 28.4 cm x 6 cm Ø<br>11.2 " x 2.4 " Ø |
| **WPF8** | 100 kHz – 8 GHz | Flat | E-Field: 0.2 – 20 V/m (RMS)<br>0.2 – 130 V/m (CW) | ±0.5 dB (0.5 – 100 V/m) | 28.4 cm x 6 cm Ø<br>11.2 " x 2.4 " Ø |
| **WPF8-HP** | | Flat | E-Field: 0.2 – 20 V/m (RMS)<br>0.2 – 1,000 V/m (CW) | ±0.5 dB (0.5 – 100 V/m) | 28.4 cm x 6 cm Ø<br>11.2 " x 2.4 " Ø |
| **WPF18** | 300 kHz – 18 GHz | Flat | E-Field: 0.5 – 30 V/m (RMS)<br>0.5 – 250 V/m (CW) | ±0.5 dB (0.5 – 100 V/m) | 28.4 cm x 6 cm Ø<br>11.2 " x 2.4 " Ø |
| **WPF18-HP** | | Flat | E-Field: 0.5 – 30 V/m (RMS)<br>0.5 – 1,000 V/m (CW) | ±0.5 dB (0.5 – 100 V/m) | 28.4 cm x 6 cm Ø<br>11.2 " x 2.4 " Ø |
| **WPF40** | 1MHz – 40 GHz | Flat | E-Field: 1 – 55 V/m (RMS)<br>1 – 1,000 V/m (CW) | ±2 dB (1 – 2 V/m)<br>±1 dB (2 – 250 V/m) | 28.4 cm x 6 cm Ø<br>11.2 " x 2.4 " Ø |
| **WPF60** | 1MHz – 60 GHz | Flat | E-Field: 1 – 55 V/m (RMS)<br>1 – 1,000 V/m (CW) | ±2 dB (1 – 2 V/m)<br>±1 dB (2 – 250 V/m) | 28.4 cm x 6 cm Ø<br>11.2 " x 2.4 " Ø |
| **WPF60S** | 1MHz – 60 GHz | Shaped (ICNIRP 1998/2020, FCC) | E-Field: 0.1% – 35% (RMS)<br>0.1% – 800% (CW) | ±2 dB (1 – 2 V/m)<br>±1 dB (2 – 250 V/m) | 28.4 cm x 6 cm Ø<br>11.2 " x 2.4 " Ø |
| **WPT** | Selective: 700 – 900,<br>1800 – 1900,<br>2100, 2600 MHz | Flat | E-Field: 0.04 – 65 V/m (RMS) | <±0.4 dB (0.2 – 50 V/m) | 28.5 x 10.5 x 10.5 cm<br>11.2 x 4.1 x 4.1 " |
| **WP-WIFI** | WiFi 2.45 GHz | Flat | E-Field: 0.04 – 65 V/m (RMS) | <±0.5 dB (0.2 – 50 V/m) | 28.5 x 10.5 x 10.5 cm<br>11.2 x 4.1 x 4.1 " |

*Below and above the stated frequency range, upper limit of the measurement range changes (See datasheets for more information).

Visit **www.wavecontrol.com/rfsafety/en/products/probes**, for detailed datasheets of each field probe model.

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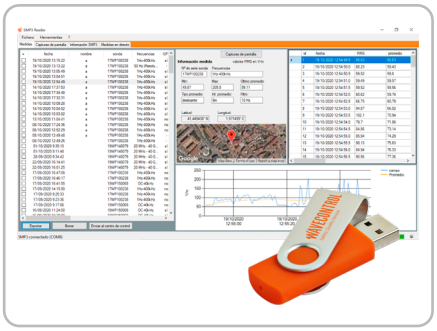
## Electromagnetic field meter. Accessories

## SMP3 included accessories



**'SMP3 Reader' PC software**
Included / Downloadable from **wavecontrol.com**

Compatible with Windows 7 or later versions

**SMP3 carrying case**
Part # WSN0001-2-3

Robust case to fit the SMP3 and up to 5 probes

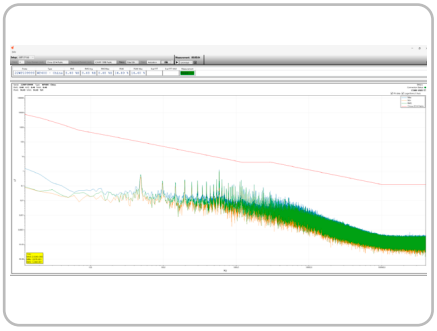
**USB cable**

USB to USB-C cable

**AC/DC charger**

International plug types available

## SMP3 optional accessories



**SMP3-Streamer option**
Part # W-SMP3-STREAMER

Advanced real time processing and multi-probe use

**Non-reflective wooden tripod**
Part # WSNA0001

Including transport cover

**Tripod extension**
Part # WSNA0002

Horizontal extension for LF vertical E-field measurements

**Probe support for tripod**
Part # WSNA0013

Recommended with the probe extension cable

**Probe extension cable**
Part #WSNA001 and #WSNA0014

2 or 5 meters extension cable

**GPS**
Part # WSNO0001

Internal embedded GPS

**Fibre optics interface**
Part # WSNA0004, WSNA0010, and WSNA0015

10, 20, or 45 meters fibre optics + USB converter to PC

**Vehicle DC charger**
Part # WSNA0007

Charge SMP3 from a vehicle DC connector

**SMP3 protective pouch**
Part # WSNA0009

Easily portable protective soft sheath

**SMP3 backpack**
Part # WSNA0008

Soft backpack to fit up to 3 probes

SMP3_EN_2103_v1.7

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